

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

| - , <del></del> | NEW APPLICATION   | TRANSMITTAL  |
|-----------------|---|--|
| Transmitt       | ted herewith for filing is the patent application of  | 101  |
| Inventor(       | (s): Tae-seong Jang and Sung-ho Choi  |  |
| For (title)     | DEVICE HAVING BITLINE<br>COUPLING SCHEME CAPABLE OF<br>PREVENTING DETERIORATION OF<br>SENSING SPEED | CERTIFICATE OF MAILING 37 C.F.R. § 1.10 "Express Mail" Mailing Label Number EV322656105US. I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop Patent Application, Commissioner for |
|                 | Type of Application This new application is for a(n)  | Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.  Date: 7-30-03  Christopher J. Hren   |
|                 | Original (nonprovisional)   | CHRISTORIER HILEN Print Name   |
|                 | Design  |  |
|                 | ☐ Plant   |  |
| -               | Divisional.   |  |
|                 | ☐ Continuation.   |  |
|                 | ☐ Continuation-in-part (C-I-P).   |  |
| 2. Ben          | nefit of Prior Application(s)   |  |
|                 | ☑ The new application being transmitted claims the See Item 7.                                      | e benefit of prior Korean application no. <u>02-85866.</u>   |
| 3. Pa           | apers Enclosed  |  |
| -               | 8_Pages of specification  |  |
| -               |   |  |
|                 | 1 Page of Abstract  |  |
|                 | 4 Sheets of drawings  |  |
| 12              | ⊠ formal  |  |
| *               | □ informal  |  |

The enclosed drawing(s) are photograph(s), and there is also attached a "PETITION TO ACCEPT PHOTOGRAPH(S) AS DRAWING(S)." 37 C.F.R. 1.84(b).

Page of Cover Sheet

|  |             | 1                 |  |                                    |              |                |               |                 |             |
|--|-------------|-------------------|--|------------------------------------|--------------|----------------|---------------|-----------------|-------------|
|  |             | Prelimir          | nary Amendment                             |                                    | ٠.           | . •            |               |                 |             |
|  |             | Informa           | tion Disclosure S                          | Statement (37 C                    | .F.R. 1.98)  |                |               |                 |             |
|  |             | Form PT           | O-1449 (PTO/S                              | B/08A and 08B                      | )            |                |               |                 |             |
|  |             | Copies o          | of cited reference                         | S                                  |              |                |               |                 | - *         |
|  | - 🗆         | Declarat          | ion of Biologica                           | l Deposit                          |              |                |               |                 |             |
|  | - □ ·       |                   | ion of "Sequence<br>ology invention        |                                    |              |                |               | t pertaining t  | hereto for  |
|  |             | Authori           | zation of Attorne                          | ey(s) to Accept a                  | and Follow I | nstructions    | from Represe  | ntative         |             |
|  |             | Special           | Comments                                   |                                    |              |                |               |                 |             |
|  | $\boxtimes$ | Other: F          | Return Postcard.                           |                                    |              |                |               |                 |             |
| 5.   | Dec         | laration o        | or oath                                    |                                    |              |                |               |                 |             |
|  | Ø           | Enclose           |  |                                    |              |                |               |                 | ·           |
|  |             | 6-3               | executed                                   |                                    |              |                | ·             |                 |             |
|  |             |                   | ecuted by                                  |                                    | ;            | F <sub>4</sub> |               |                 | • •         |
|  |             | ×                 | inventors'                                 |                                    |              |                |               |                 |             |
|  |             |                   | legal repre<br>37 CFR 1.                   | sentative of inve<br>42 or 1.43.   | entor(s).    |                |               |                 | · .         |
| a de la companya de l |             |                   |  | tor or person she                  |              | prietary inte  | rest on bèhal | f of inventor   | who refused |
|  | ÷           |                   |  | petition require<br>ched. See item |              |                | he statement  | required by 3'  | 7 CFR 1.47  |
|  | - 🔲         | Not Enc           | losed                                      |                                    |              | •              |               |                 |             |
|  |             | Applicat          | ion is made by a                           | person authoriz                    | ed under 37  | C.F.R. 1.41    | (c) on behal  | f of all the ab | ove named   |
|  | ,           |                   | Showing                                    | that the filing is                 | authorized.  | e              |               |                 |             |
| <b>6.</b> .  | Assigi<br>⊠ | nment<br>An assig | nment of the inv                           | ention to <u>Sam</u>               | sung Electro | onics Co., L   | d             | ·               |             |
|  |             | AC                | tached. A separ<br>COMPANYING<br>I follow. |                                    |              |                |               |                 | attached.   |
|  | :           |                   |  |                                    |              |                |               |                 |             |

Additional papers enclosed

# 7. Certified Copy

Certified copy(ies) of application(s)

| Korea   | 02-85866   | December 28, 2002                      |  |
|---------|------------|--|--|
| Country | Appln. no. | Filed                                  |  |
|         | ,          |  |  |
|         |            |  |  |
| Country | Appln. no. | Filed                                  |  |
|         |            |  |  |
| Country | Appln. no. | Filed                                  |  |
|         | Country    | Country Appln. no.  Country Appln. no. | Country Appln. no. Filed  Country Appln. no. Filed |

from which priority is claimed

- is (are) attached.
- □ will follow.

# 8. Fee Calculation (37 C.F.R. 1.16)

|   | <u> </u>  |        | LAIMS | AS FILE    | D .                                   | ·        |  |
|---|-----------|--------|-------|------------|---------------------------------------|----------|--|
|   | Number fi | lled   | Nur   | nber Extra | 1                                     | Rate     | Basic Fee<br>37 C.F.R. 1.16(a)<br>\$750.00 |
| Total<br>Claims (37 CFR 1.16(c))                  | 8         | - 20 = |       | 0          |                                       | \$ 18.00 |  |
| Independent<br>Claims (37 CFR 1.16(b))            | 2         | - 3 =  |       | 0          |                                       | \$ 84.00 |  |
| Multiple dependent claim( if any (37 CFR 1.16(d)) | s),       |        |       | +          | · · · · · · · · · · · · · · · · · · · | \$280.00 |  |

| A Preliminary Amendment is enclosed. The filing fee is calculated based on        |    |
|---|----|
| he status and number of claims remaining after entry of the Preliminary Amendment | ţ. |

- ☐ Amendment deleting multiple-dependencies is enclosed.
- Fee for extra claims is not being paid at this time.

Filing Fee Calculation

\$750 OO

| 9.  |      | Intity Statement(s)  Verified Statement(s) | that this is a     | filing by a small ent        | ity under 37 CFR 1    | 0 and 1 27  | is (are) att | ached |
|-----|------|--|--------------------|------------------------------|-----------------------|-------------|--------------|-------|
|     |      | Status as a small entit                    | y was claimed      | in prior application         | ,                     | filed on    |              |       |
|     |      | from which benefit is                      | _                  | for this application         | under:                |             |              |       |
|     | 35   | SU.S.C. $\Box$ 119(e)                      | ,                  |                              |                       |             |              |       |
|     | •    | $\square$ 120,                             |                    |                              |                       |             |              |       |
|     |      | □ <sub>121,</sub>                          |                    | •                            |                       |             |              |       |
|     |      | □ 365(c)                                   | ,                  |                              |                       |             |              |       |
|     | and  | which status as a sma                      | ll entity is still | proper and desired           | •                     |             |              | ••    |
|     |      | □ А сору                                   | of the verified    | statement in the pri         | or application is inc | luded.      |              |       |
|     |      | Į.   | iling Fee Cal      | culation (50% of A           | ., B or C above)      |             |              |       |
|     |      |  | \$                 | ·                            |                       |             |              |       |
|     |      |  | · <del></del> -    |                              |                       | 1           |              |       |
|     |      |  |                    |                              |                       |             |              |       |
| 10. | Fee  | Payment Being Mac                          | le at This Tir     | ne                           | •                     |             |              |       |
|     |      |  |                    |                              |                       |             |              |       |
|     | . 🗆  | Not Enclosed                               |                    | •                            |                       |             |              |       |
|     | ·    | No filing fee is to be (This and the sur   | •                  | me.<br>red by 3.7 C. F.R. 1. | 16(e) can be paid s   | ubsequently | ))           |       |
|     |      | Enclosed                                   |                    |                              |                       |             |              | 4     |
|     | -    | Basic filing fe                            | e                  |                              | <u>\$750.00</u>       |             |              | *     |
| r   |      | Recording assi                             |                    |                              |                       | •           |              |       |
|     |      | Recording assi (\$40.00; 37 C.F.R.         | _                  |                              |                       |             | •            |       |
|     |      | (See attached "COV                         |                    | OR ASSIGNMENT                |                       |             |              |       |
| ٠   |      | ACCOMPANYING                               | NEW APPLI          | CATION".)                    | \$ <u>40.00</u>       |             |              |       |
|     |      | N  |                    |                              |                       |             |              |       |
|     |      |  |                    |                              |                       |             | . '          |       |
|     |      | •  | Total fees e       | nclosed                      | \$ <u>790.00</u>      |             |              |       |
|     |      |  | •                  |                              |                       |             |              |       |
| 11. | Metl | hod of Payment of Fe                       | es                 |                              |                       |             |              |       |
|     |      |  |                    |                              | *                     |             | ų <u>.</u>   |       |
|     |      | Checks in the ar                           | nounts of \$7      | 50.00, \$40.00               |                       |             |              |       |
|     |      | ☐ Charge Account A duplicate of this       |                    |                              | \$                    |             | <del></del>  |       |
|     |      | A duplicate of this                        |                    | utinelled.                   |                       | . •         |              | :     |
|     |      |  |                    |                              |                       |             |              |       |

### 12. **Authorization to Charge Additional Fees**

| ☑ 37 C.F.R. 1.16(a), (f) or (g) (filing fees)  |
|--|
| 37 C.F.R. 1.16(b), (c) and (d) (presentation of extra claims)  |
| ☐ 37 C.F.R. 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application) |
| ☐ 37 C.F.R. 1.17 (application processing fees)   |
| ☐ 37 C.F.R. 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 C.F.R. 1.311(b))                                   |

Respectfully submitted,

MILLS & ONELLO LLP Eleven Beacon Street, Suite 605

☐ Refund

Boston, MA 02108

Telephone: (617) 994-4900 Facsimile: (617) 742-7774

Registration Number 36,610

Attorney for Applicants

J:\SAM\0447\pattransltr.wpd

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):

Tae-seong Jang, et al.

Filing Date:

Herewith

Title:

SEMICONDUCTOR MEMORY DEVICE HAVING BITLINE

COUPLING SCHEME CAPABLE OF PREVENTING

DETERIORATION OF SENSING SPEED

### CERTIFICATE OF MAILING UNDER 37 C.F.R.§ 1.10

"Express Mail" Mailing Label Number EV322656105US. I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below and is addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

7-30-03

Date

Christopher J. Hren

Mail Stop Patent Application Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

### TRANSMITTAL LETTER

Sir:

Enclosed herewith for filing in the above-identified patent application please find the following listed items:

- 1. New Application Transmittal;
- 2. New Patent Application;
- 3. Executed Declaration, Petition and Power of Attorney;
- 4. Four (4) Sheets of Formal Drawings (Figures 1-4);
- 5. Certified Copy of Priority Document Korean Application No. 02-85866;
- 6. Check in the amount of \$750.00 to cover application filing fee;
- 7. Assignment Recordation Form Cover Sheet - PTO-1595;
- 8. Executed Assignment;
- 9. Check in the amount of \$40.00 to cover Assignment recordation fee; and
- 10. Return Postcard.

In connection with the foregoing matter, please charge any additional fees which may be due, or credit any overpayment, to Deposit Account Number 50-1798. A duplicate copy of this letter is provided for this purpose.

Respectfully submitted,

Mills & One lo LLP

Eleven Beacon Street, Suite 605

Boston, MA 02108

Telephone: (617) 994-4900 Facsimile: (617) 742-7774

J:\SAM\0447\transapp.wpd

Steven M. Mills

Registration Number 36,610

Attorney for Applicants